REMARKS

Applicant respectfully requests that the changes to the claims be entered in order to place the application in condition for allowance or to place the application in better condition for appeal. The bulk of the changes are directed to minor issues of form and are not intended to change the meaning of the claims. The newly added claims depend from the independent claims.

Claim 1 is amended to state that fault information is determined from a portion of a communication generated by a subscriber terminal. This Amendment is consistent with arguments previously presented, such as those made in the response filed September 11, 2003. It is not intended to raise new issues. Rather, it is intended to crystalize the point of disagreement and either place the application in condition for allowance or in better position for appeal.

Rejection Under 35 U.S.C. §102(e) Based on Caswell

Claims 1, 4, 5, 7-12, 15, 16 and 23 are rejected based on Caswell et al.

The rejection should be withdrawn because it is based on an improper interpretation of the Caswell reference. Claim 1 requires that a diagnostic unit receive "a communication from a subscriber experiencing a problem with the network." The claim further requires "determining ... fault information of said subscriber terminal from a portion of said communication generated by the subscriber terminal." The Caswell reference does not show these features.

The Examiner states that subscriber terminal 105 communicates with the diagnostic terminal 106. While both the subscriber terminal and diagnostic terminal may communicate using HTTP, each is described only to implement the client side of the HTTP exchange. Specifically, each may include a web browser. Column 5, lines 49-62 suggests that the web browsers in the subscriber terminals are used to access local service servers 116 or similar remote servers. Column 8, lines 33-47 describes that the web browser of the diagnostic terminal 106 sends diagnostic requests to diagnostic server 130. Through these web browsers, the subscriber terminal and the diagnostic terminal may each communicate with servers. But, there is no indication that either web browser is capable of acting as the server side of the HTTP link. Accordingly, the reference may not be reasonably interpreted as teaching communication between subscriber terminal 105 and diagnostic terminal 106.

To the contrary, the reference describes that the subscriber terminal is in a separate domain from the diagnostic system so that access to the diagnostic system from the subscriber terminal is restricted. The reference states at column 6, line 63:

> "When the system 101 is not functioning properly, the operator of the system 101 can run a number of tests to determine if any component of the system 101 is faulty or malfunctioning. The operator or entity of another control domain, however, can not access system 101 to determine if anything is wrong within the system or not...The subscriber terminal 105 is another independently administered control domain which is referred to as user domain."

This passage indicates that a subscriber does not access the diagnostic unit of Caswell. This conclusion is bolstered by column 8, line 2, which indicates the customer support representative generates a diagnostic request through the diagnostic terminal 106—not the subscriber terminal 105.

Thus, the reference fails to show or suggest the limitation of the claim that requires receiving, through the diagnostic website with the diagnostic unit, a communication from a subscriber experiencing a problem with the network."

The reference also does not show or suggest the claim limitation that requires "determining with said diagnostic unit fault information of said subscriber terminal from a portion of said communication generated by the subscriber terminal." Caswell describes that the diagnostic server invokes tests or test routines (column 7, line 67). It does not describe determining fault information from a portion of a communication generated by a subscriber terminal. For the foregoing reasons, claim 1 is neither anticipated nor obvious in light of the reference and should be allowed.

Claims 4, 5, 7-12, 15, 16 and 23 depend from claim 1 and should be allowed for the same reason as explained in connection with claim 1. The dependent claims recite further limitations that provide further distinguishing features over the references.

For example, claims 7-9 and 15-16, describe gathering information from the subscriber. In the present application, faults are identified from communications originating on the subscriber premises. In contrast, the Caswell reference describes tests invoked by a customer

support operator. There is no teaching or suggestion to gather such information about a subscriber.

Claim 10 emphasizes a further distinguishing point. The claim requires a diagnostic unit to receive a communication from the subscriber terminal. Fault information is determined from a portion of the communication generated by the subscriber terminal. Because the subscriber terminal is in communication with the diagnostic unit, it is possible in a system according to the claim for the diagnostic unit to emulate a log-in service to the subscriber. Caswell describes only that test routines are executed in response to requests by a customer support representative. Caswell does not show a configuration that can provide this feature, nor does the reference recognize the benefits that can be achieved with the claimed configuration by emulating log in and authentication and authentication services to the subscriber. Accordingly, the claim is not anticipated or obvious in light of the references.

Claim 11 also emphasizes a result of a communication between a subscriber terminal and the diagnostic unit. Claim 11 expressly recites that fault information is determined by analyzing the format of data sent by the subscriber. In contrast, Caswell describes only determining fault information by running test routines.

Claim 23 recites that the diagnostic unit is used to emulate a service accessible over the network. In the Caswell reference, diagnostic terminal 106 is used by a customer support representative to invoke tests run by diagnostic servers. The passage cited by the Examiner describes that the diagnostic terminal 106 is clearly distinct from a subscriber's terminal shown as 105 in figure 2. The diagnostic terminal 106 displays results of those tests. At no point does the reference describe that diagnostic terminal 106 displays the results of emulations of network elements with which subscriber terminal 105 may communicate.

Rejection Under 35 U.S.C. §103(a) Based on Caswell and Schwaller

Claims 2, 3, 6, 12 and 17-20 are rejected under 35 U.S.C. §103(a). Claims 2, 3, 6 and 12 depend from claim 1. As discussed above, claim 1 contains features not shown or suggested in the Caswell reference. Schwaller does not teach or suggest these features. Accordingly, claims 2, 3, 6 and 12 should be allowed for the reasons given in connection with claim 1.

Further, claims 2, 3 and 6 recite additional features relating to a fault tolerant protocol stack, which is not shown or suggested by the references. Applicants disagree that Schwaller meets the claim limitation of a fault tolerant protocol stack. Though the Examiner is entitled to give a broad reading to the terms in the claim, the reading must both be reasonable and consistent with the specification (MPEP 2173.06(a)). Schwaller does not meet the claim limitation if given a reasonable interpretation.

Figure 3 of the Schwaller reference shows a device 20 communicating over two separate networks: Network 1 and network 2. Separate protocol stacks 32 and 32' are provided for each network. Information intended for console engine 30 may be communicated over either network 1 or network 2. Information intended for console engine 30 communicated over network 1 will be sent in messages formatted according to the protocol of network 1. Stack 32 performs a series of processing steps in which the actual information is extracted from the message sent over the network. The processing steps are prescribed by the protocol used for communicating over network 1. In a traditional communication, if the message received over network 1 does not comply with the protocol for network 1, processing through stack 32 will fail.

Similarly, messages sent over network 2 will be in the form prescribed by the protocol of network 2. Stack 32' will extract information intended for console engine 30 from any such message. Stack 32' will apply processing steps specified by the protocol used by network 2. If the message received over network 2 does not comply with the protocol for network 2, processing in stack 32' will fail.

There is no basis to believe that either stack 32 or stack 32' is a fault tolerant protocol stack that will continue to process messages that do not comply with its protocol. There is also no basis to believe that network 1 and network 2 use different protocols or, that if protocol stack 32 receives a message in a protocol that can be processed by stack 32' that the necessary will be sent to stack 32' for processing. In short, there is no reasonable interpretation of the claimed term "fault tolerant protocol stack" under which that term reads on the stacks in Schwaller.

In contrast, the specification of the present application describes that if a message is received over the network which does not comply with the protocol for the network the fault tolerant stack will change or insert information to allow processing of the message as if it conformed to the protocol of the network. In this way, communications may continue even if a

subscriber terminal is transmitting messages that do not conform to the network protocol. The claim term "fault tolerant protocol stack" would be reasonably understood by one of skill in the art after reading the specification and would be readily distinguished from a traditional protocol stack. One of skill in the art would readily distinguish a fault tolerant protocol stack from a unit such as Schwaller using multiple traditional protocol stacks.

As to claims 17-20, Applicants disagree that the Caswell reference shows the basic components of independent claim 17. As described above in connection with claim 1, Caswell provides a system by which a customer service representative may use a diagnostic terminal to invoke tests run by a diagnostic server. It does not meet the claim limitation of "receiving, with said diagnostic unit, a communication from a subscriber unable to communicate with a desired network element."

Furthermore, claim 17 recites "allowing communications between said subscriber and said diagnostic unit by accepting data from said subscriber in a source protocol inconsistent with a network element protocol of a selected network element" and "... sending an indication of the data received from the subscriber to the selected network element in a protocol consistent with the network element protocol." Neither reference shows this limitation.

Schwaller shows multiple protocol stacks, but does not describe using protocols in these stacks. Schwaller explains the reason for multiple stacks (column 27, lines 58-60) that multiple stacks may be used to converse with multiple endpoint nodes at the same time. It does not describe allowing communications between the subscriber and the diagnostic unit by accepting data from the subscriber in a source protocol inconsistent with a network element protocol or of establishing a communication link with the subscriber and sending an indication of data received from the subscriber to the selected network element in a different protocol.

Claim 19 also contains features not shown or suggested in the references. The references do not describe a diagnostic unit that is programmed to accept data from a subscriber in a source protocol inconsistent with a network element protocol, determines configuration information of the subscriber and sends an indication of the data received from the subscriber to the selected network element in the protocol consistent with the network element protocol. As stated above, Schwaller describes two protocol stacks, but does not describe using separate protocols in the two stacks or accepting data in one protocol and sending an indication of that data is another

protocol. Further, the stacks in the reference are not used for diagnostic purposes. Accordingly, the reference does not teach or motivate a diagnostic unit as in the claim and the claims should be allowed.

Rejection of Claims Under 35 U.S.C. §103(a) Based on Caswell and Stephanou

Claims 13, 14, and 22 are rejected under 35 U.S.C. 103(a) based on Caswell and Stephanou. Claims 13, 14 and 22 depend from claim 1. For the reason stated above in connection with claim 1, the Caswell reference does not teach the base elements of the claim. Stephanou relates to a system in which help requests from a user are directed to human experts. It does not teach the elements of claim 1 absent in Caswell. Further, there is no teaching or suggestion to combine Stephanou with Caswell. Caswell describes use of an automated system to diagnose faults and specifically describes an interface to that system, so there is no reason to add the interface of Stephanou to the system of Caswell.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,
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